

## ABSTRACT OF THE DISCLOSURE

METHOD AND SYSTEM FOR DYNAMICALLY INVERTING AN  
ASYMMETRIC DIGITAL SUBSCRIBER LINE (ADSL) SYSTEM

5 A method and system for dynamically inverting an  
Asymmetric Digital Subscriber Line (ADSL) system. The  
ADSL system includes a central exchange equipment (CE)  
connected to a service provider network and a user  
10 equipment (UE) connected to a user workstation. The CE  
and UE are interconnected by a PSTN link. The CE  
includes an input line for transmitting high-speed data  
from the service provider network to the user workstation  
and an output line for receiving medium-speed data from  
15 the user workstation. The CE further employs CE  
coding/decoding means for coding the high-speed data and  
decoding the medium-speed data. The UE includes an input  
line for transmitting medium-speed data from the user  
workstation to the service provider network and an output  
20 line for receiving high-speed data from the service  
provider network. The UE further includes UE  
coding/decoding means for coding the medium-speed data  
and decoding the high-speed data. In accordance with the  
method of the present invention, an inverting request  
25 message is transmitted from the UE to the CE. In  
response to the inverting request message, the CE  
coding/decoding means are activated for coding  
medium-speed data on the CE input line and decoding  
high-speed data on the CE output line. Next, a first  
30 acknowledgment message is transmitted from the CE to the  
UE informing the UE that transmission in reverse mode is  
authorized. In response to the first acknowledgment

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message, the UE coding/decoding means are activated.  
Finally, a second acknowledgment message is transmitted  
from the UE to the CE informing the CE that switching  
into reverse mode is completed.

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